

## **What is claimed is:**

**[Claim 1]** 1. A configurable overhead console for a vehicle, the overhead console comprising:

a headliner having a structural support member substantially concealed from a vehicle occupant with a plurality of attachment apertures adapted to receive modules positioned below the headliner.

**[Claim 2]** 2. The configurable overhead console of claim 1 wherein the headliner further comprises at least one positioning aperture associated with each of the plurality of attachment apertures.

**[Claim 3]** 3. The configurable overhead console of claim 2 further comprising:  
at least one module having at least one positioning pin that cooperates with the at least one positioning aperture and a latching device that cooperates with at least one of the attachment apertures of the headliner and structural support member to secure the module to the headliner.

**[Claim 4]** 4. The configurable overhead console of claim 3 wherein the latching device of the at least one module is rotatable to secure the module to the headliner and structural support member.

**[Claim 5]** 5. The configurable overhead console of claim 1 wherein the structural support member comprises a beam having three channels including two outboard channels and a central channel extending longitudinally above the headliner with the plurality of attachment apertures spaced along a length of the central channel.

**[Claim 6]** 6. The configurable overhead console of claim 5 wherein the structural support member further comprises two diagonally positioned alignment apertures for each of the plurality of attachment apertures.

**[Claim 7]** 7. The configurable overhead console of claim 6 further comprising an electrical conductor extending along each side of the plurality of attachment

apertures and extending at least partially over the alignment apertures to engage alignment pins during installation of a powered module.

**[Claim 8]** 8. A configurable overhead console system comprising:

a headliner having a plurality of console module attachment holes spaced along a central axis, the attachment holes being sized and spaced sufficiently to inhibit folding of the headliner along the central axis;

a support structure having a bottom surface secured to a top surface of the headliner to be substantially concealed from view of a vehicle occupant, the support structure including module attachment holes corresponding to the module attachment holes of the headliner and a top surface attachable to a vehicle roof ; and

at least one console module having a latching device attachable to an attachment hole of the support structure to secure the console module to the support structure.

**[Claim 9]** 9. The system of claim 8 wherein the console module includes a rotatable latching device that secures the console module to the support structure with less than one complete revolution of the latching device.

**[Claim 10]** 10. The system of claim 8 wherein the console module comprises a storage compartment.

**[Claim 11]** 11. The system of claim 8 wherein the console module comprises a control module to control at least one vehicle accessory.

**[Claim 12]** 12. The system of claim 8 wherein the headliner and support structure include at least one positioning hole for each attachment hole to inhibit rotational movement of an installed console module.

**[Claim 13]** 13. The system of claim 8 further comprising a blank plate having a fixed attachment device for engaging and concealing at least one attachment hole where a console module is not installed.

**[Claim 14]** 14. The system of claim 8 further comprising an electrical conductor integrated with the support structure along each side of the attachment holes to distribute power to installed console modules.

**[Claim 15]** 15. A method for assembling a configurable overhead console system, the method comprising securing at least one console module to a support structure positioned above a headliner, the support structure and headliner having a plurality of attachment apertures with each attachment aperture having at least one associated positioning aperture that cooperates with at least one corresponding positioning pin of the console module.

**[Claim 16]** 16. The method of claim 15 further comprising securing at least one blank plate to the support structure via one of the attachment apertures in a location where no console module is installed.

**[Claim 17]** 17. The method of claim 15 wherein the step of securing at least one console module to the support structure comprises securing a console module to the support structure using a single rotatable latching device.

**[Claim 18]** 18. The method of claim 15 wherein the step of securing at least one console module to the support structure comprises securing a console module to the support structure by rotating a latching device less than one complete revolution.

**[Claim 19]** 19. The method of claim 15 further comprising establishing an electrical connection to the console module by contacting electrical conductors embedded within the support structure with electrical contacts integrated with positioning pins of the console module during installation of the console module.

**[Claim 20]** 20. The method of claim 15 wherein the step of securing at least one console module to the support structure comprises aligning diagonally positioned alignment pins on the console module with corresponding diagonally positioned alignment holes in the support structure.